Open HMI Solutions

Interfaces for Seamless Interaction between Humans and Machines

- Touch Panel Computers
- Industrial Panel PC's
- Industrial Monitors
- Industrial Automation Computing Platforms

ADVANTECH
eAutomation

CE FC ⊖ ⓒ ⓒ⑪ᵤₗ ⊞ RoHS   www.advantech.com/eA

Open HMI Solutions

The world market for operator terminals was estimated to have been worth just over $1.5 billion in 2005. The total market is forecast to grow at a compound annual growth rate (CAGR) of 7.4% to $2.3 billion in 2011. Open operator terminals are projected to have the fastest growing revenues and unit shipments over the forecast period 2006 to 2011, with CAGR's of 10.5% and 12.7% respectively. The worldwide touchscreen operator terminal market represented nearly 70% of total worldwide revenues in 2005, with this percentage set to increase slightly over the forecast period.

Open HMI operates with a scalable (and open) operating system (providing standard file formats, interfaces and communications) and can provide some PC-based functionality, such as increased information processing. These are diskless and fanless products that offer advanced functionality over traditional HMI products with improved data handling and standard interfaces and communications.

Led by the flourishing PC-based technology market, open HMI devices not only provide interactive, vivid displays for operators & supervisors, but also Ethernet networking, high performance computing, and open expansion capabilities. Open HMI devices are replacing traditional operator terminals by offering complete, intelligent HMI/SCADA platforms.

Open HMI

Flexible & Rich Functionality

Ethernet & Wireless Communication

Rugged Robust Design

Fanless System Design

Embedded Windows OS

Open Platform with X86, RISC CPU

Touchscreen Operator Interface

Graphic User Interface

Text Mode Display

Numeric Display

1970 | 1980 | 1990 | 2000 | Now

Proprietary Technology

PC-based Technology

Open HMI Solutions

Open HMI, Unlimited Potential

Advantech's vision is to become the leading HMI platform provider in the PC-based industrial automation market by creating value-added, standard product solutions and by offering customization to meet unique requirements. We offer a wide range of HMI products for automation needs, including; hardware platforms such as the Touch Panel Computers (TPC), Industrial Panel PC's (IPPC), and Industrial Monitors (FPM). We also offer powerful Windows XP/XPe/CE and Linux-based HMI solutions to easily migrate applications up or down as scope changes.

Touch Panel Computers (TPC)

Compact & Rugged HMI Platforms for Seamless Interaction between Humans and Machines

The ultra-slim, light, fanless and vibration-resistant design of Advantech's TPC series provides an ideal HMI platform for most automation applications. TPC products are available in display sizes of 3.5", 5.7", 6.4", 8", 10.4", 12.1", 15" and 17". TPC's feature processors that are low in power consumption, and they also have a unique fanless design. With their stable system architecture, TPC is an ideal solution for any industrial environment. In addition, the product housings are made from an Aluminum-Magnesium Alloy which results in a lightweight unit, with corrosion resistance and excellent heat dissipation.

Industrial Monitors (FPM)

Full Range of Industrial-grade Units with Multi-function Capabilities and Brilliant Displays

Advantech's industrial monitors are designed specifically for harsh environments. These monitors feature industrial-grade flat panel LCDs with brightness that is often more than twice that of commercial monitors, making them much easier to see. FPM products are designed for factory floor environments and can withstand the higher temperatures, vibration, and the dirt and dust that can be commonplace. High NEMA and IP ratings for the bezel design enable these products to be installed in wet and dusty areas. A full-range selection is provided in sizes ranging from 6", 12",15", 17" to 19".

Industrial Panel PC's (IPPC)

Powerful Computing and Robust Platforms with High Performance for Factory Floors

Advantech's IPPC series has proven their reliability through years of operation in all parts of the world. They can be built to achieve a performance and cost ratio that is optimum for any industrial application. Constructed with heavy-duty aluminum or stainless steel front panels, the rugged design of Advantech's IPPC series can withstand tough industrial environments. Equipped with powerful Intel Pentium M & Celeron M processors, the IPPC has high computing power, and also provides expansion slots for add-on boards. The IPPC can be configured with CPU, Memory, Drives and operating system that meet your diverse needs.

Heavy-duty, Expandable & Reliable Solutions to Optimize Site Operations and Visualization

Advantech provides a series of powerful Industrial Panel PC's with open architectures that incorporate widely used PC technology. These PC's are designed to be integrated with industrial platforms for controlling machinery or processes; displaying the information necessary to repair, maintain, or begin applications, and gathering basic production information. The IPPC-7000 series provides industrial motherboards, passive backplanes and accessible front panels with USB ports & multiple membrane function keys.
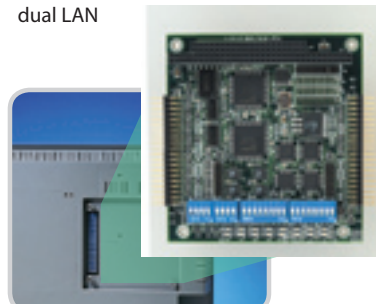
Touch Panel Computer Overview

## The X86 TPC series provides a powerful and durable solution with high computing power and ultra low voltage processors.

◆ Fanless and compact design
◆ A PC/104 or PCI-104 expansion slot gives a high degree of versatility
◆ Rich standard I/O support: providing multiple standard communications to couple with different peripherals
◆ Dual LAN and Gigabit Ethernet support
◆ Downward I/O cabling: friendly interface for plugging in cables
◆ Grounding protection
◆ Variety of OS support, including; Windows XP, WinXPe and WinCE

50mm

Rich standard I/O support and dual LAN

PCI-104 expansion
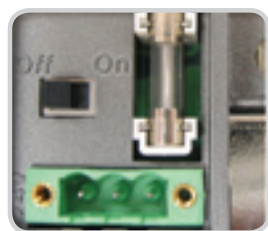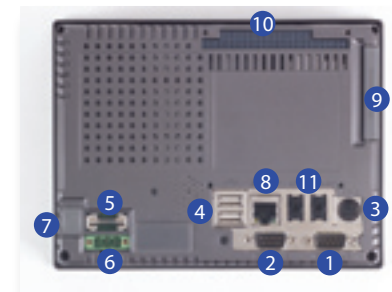
Grounding protection

Downward I/O cabling

5.7"/6.4" X86-based Touch Panel Computers

TPC-660E/662G
**5.7"/6.4" VGA TFT LCD Geode LX800
Touch Panel Computer with CAN-bus**

1. RS-232 COM port
2. RS-232/422/485 COM port (TPC-660E)
   CAN-Bus port (TPC-662G)
3. PS/2
4. USB 2.0 Host x 2
5. Fuse
6. Power Receptor
7. Power Switch
8. 10/100B-T Ethernet
9. CompactFlash
10. PC/104
11. Audio (MIC,Line-out) TPC-660E only

8"/10.4" X86-based Touch Panel Computers

TPC-870H/1070H
**8"/10.4" VGA/SVGA TFT LCD Pentium M/Celeron M
Touch Panel Computer**

1. RS-232 COM Port x 2
2. RS-232/422/485 COM Port
3. 10/100B-T Ethernet
4. PS/2
5. Power Switch
6. Fuse
7. CompactFlash
8. USB 2.0 Host x 2
9. PCI-104 Slot
10. 10/100/1000B-T Ethernet (TPC-1070H-P1E)
    10/100B-T Ethernet (TPC-1070H-C1E/870H-C1E)
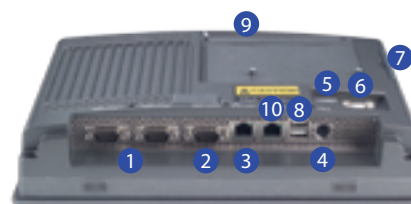
15" X86-based Touch Panel Computer

TPC-1570H
**15" VGA/SVGA TFT LCD Pentium M/Celeron M
Touch Panel Computer**

1. RS-232 COM port x 2
2. RS-232/422/485 COM port
3. VGA
4. USB 2.0 Host x 2
5. Fuse
6. Power Receptor
7. Power Switch
8. (1)10/100B-T Ethernet x 2 (only for TPC-1570H-B1E)
   (2)10/100B-Tx1, 10/100/1000B-Tx1 (only for TPC-1570H-P2E/A1E)
9. CompactFlash
10. PCMCIA, Audio (Line-in, Line-out,MIC)
11. Parallel Port
12. PS/2

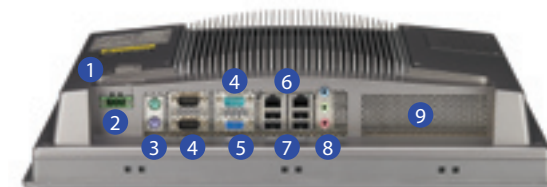
17" X86-based Touch Panel Computer

TPC-1770H
17" SXGA TFT LCD Celeron M Touch Panel Computer

1. Power Switch & Fuse
2. Power Receptor
3. PS/2
4. RS-232 COM port x 3
5. VGA
6. 10/100/1000B-T Ethernet x 2
7. USB 2.0 Host x 4
8. Audio (Line-in,Line-out,MIC)
9. External Interface (PCI/104,RS-485/422)

Touch Panel Computer Overview

The RISC kernel consumes less power without sacrificing performance.

◆ Designed to run on WinCE
◆ Support horizontal & vertical orientation
◆ Provide thin client software solutions
◆ Support CAN-bus 2.0b communication protocol

Support WinCE 6.0/5.0   Remote display

CAN-bus device support

Horizontal & vertical screen orientation

3.5" RISC-based Touch Panel Computers

TPC-30T/32T
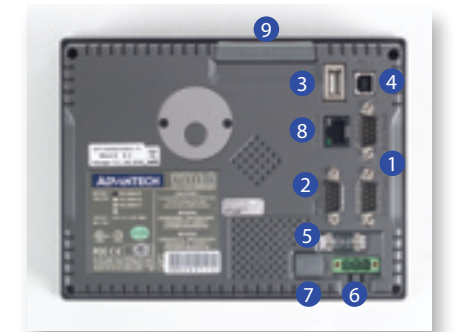**3.5" QVGA TFT LCD XScale PXA270**
Touch Panel Computer with CAN-bus

1. 10/100B-T Ethernet
2. RS-232/485 COM port (TPC-30T)
   CAN-bus/RS-232 COM port (TPC-32T)
3. Power Receptor
4. SD Slot
5. USB 1.1 Host

5.7"/5.6" RISC-based Touch Panel Computer

TPC-66SN
5.7" QVGA CSTN LCD XScale PXA270
Touch Panel Computer

1. RS-232 COM port
2. RS-232/485 COM port
3. USB 1.1 Host
4. USB 1.1 Client
5. Fuse
6. Power Receptor
7. Power Switch
8. 10/100B-T Ethernet
9. CompactFlash

TPC-66T
5.6" QVGA TFT LCD XScale PXA270
Touch Panel Computer

1. RS-232 COM port
2. RS-232/485 COM port
3. USB 1.1 Host
4. USB 1.1 Client
5. Fuse
6. Power Receptor
7. Power Switch
8. 10/100B-T Ethernet
9. CompactFlash
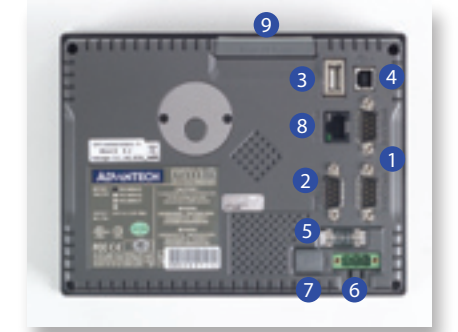
12.1" RISC-based Touch Panel Computer

TPC-120H
12.1" SVGA TFT LCD XScale PXA270
Touch Panel Computer with CAN-bus

1. RS-232 COM port x 2
2. RS-232/485 COM port
3. USB 1.1 x 2 Host
4. Power Receptor
5. Power Switch
6. 10/100B-T Ethernet x 2
7. CompactFlash
8. CAN-bus port (Optional)

TAIWAN
EXCELLENCE
2008
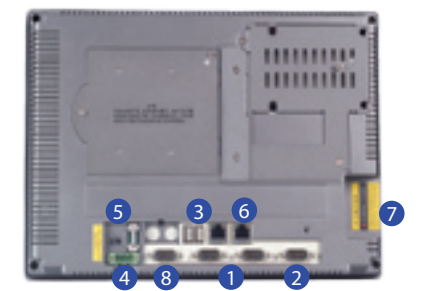
Model	TPC-1770H	TPC-1570H	TPC-1270H	TPC-1070H	TPC-870H
CPU	Intel Celeron M 1 GHz	Intel Pentium M 1.4 GHz Intel Celeron M 1 GHz Intel Celeron M 600 MHz	Intel Pentium M 1.4 GHz Intel Celeron M 1 GHz	Intel Pentium M 1.4 GHz Intel Celeron M 1 GHz	Intel Celeron M 1 GHz
Memory	512 MB DDR2 SDRAM (up to 1 GB DDR SDRAM)	512 MB DDR SDRAM (up to 1 GB DDR SDRAM)	512 MB DDR2 SDRAM (up to 1 GB DDR2 SDRAM)	512 MB DDR SDRAM	512 MB DDR SDRAM
Display — Type	SXGA TFT LCD	XGA TFT LCD	SVGA TFT LCD	SVGA TFT LCD	VGA TFT LCD
Display — Size	17"	15"	12.1"	10.4"	8"
Display — Max. Resolution	1280 x 1024	1024 x 768	800 x 600	800 x 600	640 x 480
Display — Max. Colors	16.7 M	262 K	262 K	260 K	64 K
Display — Luminance (cd/m²)	300	350	350	400	350
Display — Viewing Angle (H/V°)	160/160	120/100	140/120	140/100	130/120
Display — Backlight MTBF (hrs)	50,000	50,000	50,000	50,000	50,000
Touchscreen	Resistive	Resistive	Resistive	Resistive	Resistive
Flash Memory	N/A	N/A	N/A	N/A	N/A
HDD	1 x Internal 2.5" SATA (optional)	1 x Internal 2.5" PATA (optional)	1 x Internal 2.5" SATA (optional)	1 x Internal 2.5" PATA (optional)	1 x Internal 2.5" PATA (optional)
Network (LAN)	10/100/1000Base-T x 2	TPC-1570H-P1E/C1E,A1E 10/100Base-T x 1 10/100/1000Base-T x 1 TPC-1570H-B1E 10/100Base-T x 2	TPC-1270H-P1E/P2E 10/100Base-T x 1 10/100/1000Base-T x 1 TPC-1270H-C1E 10/100Base-T x 2	TPC-1070H-P1E 10/100Base-T 10/100/1000Base-T x 2 TPC-1070H-C1E 10/100Base-T x 2	10/100Base-T x 2
I/O ports	RS-232 x 3 USB x 4 KB x 1, Mouse x 1 VGA x 1 Audio (Mic-in x 1, Line-in x 1, Line-out x 1)	Serial Port x 3 (RS-232 x 2 and RS-232/485/422 x 1) Parallel Port x 1 VGA x 1, USB x 2 Audio (MIC-in x 1, Line-in x 1, Line-out x 1) PS/2 x 1	Serial Port x 4 (RS-232 x 3 and RS-232/485/422 x 1) VGA x 1, USB x 4 Audio (MIC-in x 1, Line-out x 1)	Serial Port x 3 (RS-232 x 2 and RS-232/485/422 x 1) USB x 2, PS/2 x 1	Serial Port x 3 (RS-232 x 2 and RS-232/485/422 x 1) USB x 2, PS/2 x 1
CompactFlash Slot	Type II x 1	Type II x 1	Type II x 1	Type II x 1	Type II x 1
PCMCIA Slot	N/A	Type II x 1	N/A	N/A	N/A
Expansion Slot	N/A	N/A	PCI-104 x 1	PCI-104 x 1	PCI-104 x 1
Power Input Voltage	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc
Dimension(WxHxD)(mm)	414 x 347.5 x 93 mm (16.3" x 13.68" x 3.66")	383 x 307 x 64.5 mm (15.08" x 12.09" x 2.54")	311 x 237 x 52.3 mm (12.24" x 9.33" x 2.06")	286 x 226 x 58 mm (11.26" x 8.9" x 2.28")	286 x 226 x 58 mm (11.26" x 8.9" x 2.28")
Weight (Net/Gross)	8 kg (17.64 lbs)	5 kg (11.02 lbs)	3.3 kg (7.28 lbs)	3.5 kg (7.72 lbs)	3.5 kg (7.72 lbs)
Front Cover	Die-Cast Aluminum Alloy	Al-Mg	Al-Mg	Die-Cast Aluminum Alloy	Die-Cast Aluminum Alloy
Operating Temperature	0 ~ 45° C (32 ~ 113° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Ingress Protection (Front Panel)	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Certifications	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Operating System	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0

Model	TPC-660E	TPC-662G	TPC-120H	TPC-66SN	TPC-66T	TPC-30T/32T
CPU	AMD Geode LX800 500 MHz	AMD Geode LX800 500 MHz	Intel PXA270 520 MHz	Intel PXA270 416 MHz	Intel PXA270 416 MHz	Intel PXA270 312 MHz
Memory	256 MB DDR SDRAM(up to 1 GB DDR SDRAM)	256 MB DDR SDRAM(up to 1 GB DDR SDRAM)	64 MB SDRAM on board	64 MB SDRAM on board	64 MB SDRAM on board	64 MB SDRAM on board
Display — Type	VGA TFT LCD	VGA TFT LCD	SVGA TFT LCD	QVGA CSTN LCD	QVGA TFT LCD	QVGA TFT LCD
Display — Size	5.7"	6.4"	12.1"	5.7"	5.6"	3.5"
Display — Max. Resolution	640 x 480	640 x 480	800 x 600	320 x 240	320 x 234	320 x 240
Display — Max. Colors	262 K	262 K	262 K	64 K	64 K	64 K
Display — Luminance (cd/m²)	220	150	340	400	500	200
Display — Viewing Angle (H/V°)	140/100	90/50	100/60	100/55	100/60	120/110
Display — Backlight MTBF (hrs)	50,000	20,000	50,000	60,000	30,000	30,000
Touchscreen	Resistive	Resistive	Resistive	Resistive	Resistive	Resistive
Flash Memory	N/A	N/A	64 MB on board	64 MB on board	64 MB on board	32 MB on board
HDD	1 x External 2.5" PATA (optional)	1 x External 2.5" PATA (optional)	N/A	N/A	N/A	N/A
Network (LAN)	10/100Base-T x 1	10/100Base-T x 1	10/100Base-T x 2	10/100Base-T x 1	10/100Base-T x 1	10/100Base-T x 1
I/O ports	Serial Port x 2 (RS-232 x 1 and RS-232/485/422 x 1) USB x 2	Serial Port x 2 (RS-232 x 1 and RS-232/485/422 x 1) USB x 2	Serial Ports x 3 (Full RS-232 x 2 and 4-pin RS-232/485 x 1) VGA x 1 USB x 2 (Host) CAN Bus x 1 (optional)	Serial Port x 3 (Full RS-232 x 2 and 4-pin RS-232/485 x 1) USB x 2 (Host x 1, Client x 1)	Serial Port x 3 and 4-pin RS-232/485 x 1 USB x 2 (Host x 1, Client x 1)	USB x 1 (Host) TPC-30T: RS-232/485 x 1 TPC-32T: CAN-Bus/RS-232 x 1 SD x 1
CompactFlash Slot	Type II x 1	Type II x 1	Type II x 1	Type II x 1	Type II x 1	N/A
PCMCIA Slot	N/A	N/A	N/A	N/A	N/A	N/A
Expansion Slot	PC-104 x 1	PC-104 x 1	N/A	N/A	N/A	N/A
Power Input Voltage	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	18 ~ 32 Vdc	8 ~ 28 Vdc
Dimension(WxHxD)(mm)	195 x 148 x 44.4 (7.68" x 5.83" x 1.75")	195 x 148 x 44.4 (7.68" x 5.83" x 1.75")	311 x 237 x 52 (12.24" x 9.33" x 2")	195 x 148 x 44.4 (7.68" x 5.83" x 1.75")	195 x 148 x 44.4 (7.68" x 5.83" x 1.75")	120.8 x 85.5 x 26.5 (4.76" x 3.37" x 1.04")
Weight (Net/Gross)	1 kg (2.2 lbs)	1 kg (2.2 lbs)	2.2 kg (4.85 lbs)	0.8 kg (1.76 lbs)	0.8 kg (1.76 lbs)	0.25 kg (0.55 lbs)
Front Cover	ABS	ABS	Al-Mg	ABS	ABS	ABS
Operating Temperature	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Ingress Protection (Front Panel)	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Certifications	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL
Operating System	Windows XP Windows XP Embedded Windows CE 5.0	Windows XP Windows XP Embedded Windows CE 5.0	Windows CE 5.0	Windows CE 5.0/4.2	Windows CE 5.0/4.2	Windows CE 5.0

Ordering Information

TPC-1770H-C1AE	17" SXGA TFT LCD with Intel Celeron M 1 GHz CPU, 512 MB DDR2 SDRAM
TPC-1570H-P2E	15" XGA TFT LCD with Intel Pentium M 1.4 GHz CPU, 1 GB DDR SDRAM
TPC-1570H-A1E	15" XGA TFT LCD with Intel Celeron M 1 GHz CPU, 512 MB DDR SDRAM
TPC-1570H-B1E	15" XGA TFT LCD with Intel Celeron M 600 MHz CPU, 512 MB DDR SDRAM
TPC-1270H-P2E	12.1" SVGA TFT LCD with Intel Pentium M 1.4 GHz CPU, 1 GB DDR2 SDRAM
TPC-1270H-C1E	12.1" SVGA TFT LCD with Intel Celeron M 1 GHz CPU, 512 MB DDR2 SDRAM
TPC-1261H-A1BE	12.1" SVGA TFT LCD with AMD LX800 500 MHz CPU, 256 MB DDR SDRAM
TPC-1070H-P1E	10.4" SVGA TFT LCD with Intel Pentium M 1.4 GHz CPU, 512 MB DDR SDRAM
TPC-1070H-C1E	10.4" SVGA TFT LCD with Intel Celeron M 1 GHz CPU, 512 MB DDR SDRAM
TPC-870H-C1E	8" VGA TFT LCD with Intel Celeron M 1 GHz CPU, 512 MB DDR SDRAM
TPC-660E-B1E	5.7" VGA TFT LCD with AMD Geode LX800 500 MHz CPU,256 MB DDR SDRAM
TPC-662G-B1E	6.4" VGA TFT LCD with AMD Geode LX800 500 MHz CPU, 256 MB DDR SDRAM with CAN-Bus
TPC-120H-E2AE	12.1" SVGA TFT LCD with Intel PXA270 520 MHz CPU, 64 MB SDRAM, WinCE 5.0 with CAN-Bus
TPC-66SN-E2AE	5.7" QVGA CSTN LCD with Intel PXA270 416 MHz CPU, 64 MB SDRAM, WinCE 5.0
TPC-66T-E2AE	5.6" QVGA TFT LCD with Intel PXA270 416 MHz CPU, 64 MB SDRAM, WinCE 5.0
TPC-30T-E2AE	3.5" QVGA TFT LCD with Intel PXA270 312 MHz CPU, 64 MB SDRAM, WinCE 5.0

Ordering Information

TPC-1570H-SMKE	TPC-1570H Desktop Stand Kit
TPC-1570H-WMKE	TPC-1570H Wall Mount Kit
TPC-1270H-SMKE	TPC-1270H Desktop Stand Kit
TPC-1270H-WMKE	TPC-1270H Wall Mount Kit
TPC-660G-EHKE	TPC-660G Extension HDD Kit
TPC-1270H-EPKE	TPC Series PC/PCI-104 Extension Kit (bracket only)

Accessories

TPC-1570H-SMKE
TPC-1570H desktop

TPC-1270H-WMKE
TPC-1270H Wallmount

TPC-1270H-EPKE

TPC-660G-EHKE

Industrial Monitor Overview

Aiming to be a leader in the display market, Advantech provides a full-range of industrial monitors for versatile applications. The Advantech FPM series ranges in size from 6", 12", 15", 17" to 19". Their industrial-grade high-brightness LCD and anti-glare design provide a long-lasting and reliable information interface. The FPM series supports panel mounting, VESA and desktop mounting to fit various kinds of applications.

User-friendly Features

DC adapter with plug bracket makes the machine more reliable in critical environments

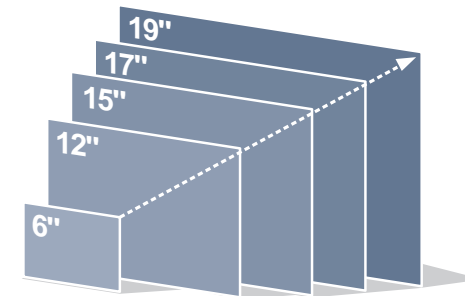Industrial 24Vdc power input is compatible for factory installation

A combination of touchscreen interfaces with lockable connectors is provided, allowing secure attachments for a variety of uses

Front-accessible USB port provides a convenient & practical solution
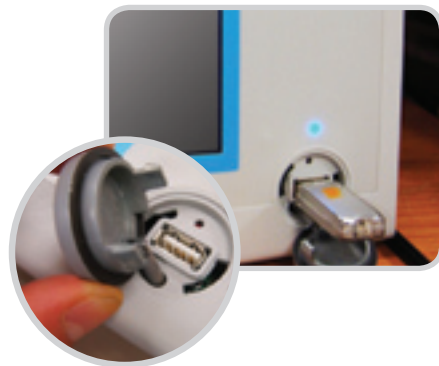
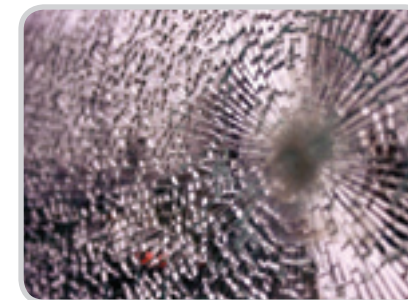OSD provides a user friendly interface for brightness adjustment

Complete Product Line
• Complete selection of sizes from 6" to 19"
• For diverse application demands

NEMA4/IP65 Compliant
The IP65 rating means that the monitor is protected from ingress of dust and jets of water from all directions.

Has a tempered glass screen, which is nearly 4X stronger than annealed glass. When struck by an outside force, a tempered glass screen won't shatter into pieces, making it very easy to clean in the event of breakage

Robust design with stainless steel chassis and aluminum front panel

Versatile Mounting Methods for Different Application Environments

Panel Mount   Mounting Kit for Desktop   Swing Arm   Rack Mount   Wallmount

Model		FPM-3190G/3191G	FPM-3170G/3171G	FPM-5171G	FPM-5151G
LCD Display	Size (diagonal)	19"	17"	17"	15"
	Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1024 x 768
	Colors	16.2M	16.2 M	16.7 M	16.2 M
	Viewing Angle (H/V°)	178, 178	140, 130	160, 160	140, 120
	Luminance (cd/m2)	300	300	300	250
	Backlight Life (hrs)	50000	40000	50000	50000
	Contrast Ratio	1000 : 1	700 : 1	800 : 1	500 : 1
Direct VGA Input		Yes	Yes	Yes	Yes
DVI Input		FPM-3190G	FPM-3170G	Yes	Yes
S-Video		FPM-3190G	FPM-3170G	-	-
Video Input		FPM-3190G	FPM-3170G	-	-
Touchscreen (optional)		Resistive	Resistive	Resistive	Resistive
OSD (onscreen display)		Yes	Yes	Yes	Yes
Touchscreen Sensor		ELO	ELO	AMT	AMT
Inverter		TDK	TDK	TDK	TDK
Power Adapter (voltage, AC)		100-240 V	100-240 V	100-240 V	100-240 V
DC Power Input (voltage)		N/A	N/A	10-30 V	10-30 V
Front Panel Ingress Protection		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Operating Temperature		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Certifications		BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC, UL
Dimensions (W x H x D)		312 x 244 x 44.6 mm (12.28" x 9.61" x 1.76")	220 x 150 x 46 mm (8.7" x 5.9" x 1.8")	422 x 310 x 86 mm (16.6" x 12.2" x 3.4")	383 x 307 x 48 mm (15" x 12" x 1.89")

Ordering Information

FPM-3190G-XBE	Industrial 19" TFT LCD Display with 19" Rack-Mount Bezel, Direct-VGA, DVI-D, S-Video & Video Input
FPM-3190G-RBE	FPM-3190G-XBE with Resistive Touchscreen (RS-232 Interface)
FPM-3190G-UBE	FPM-3190G-XBE with Resistive Touchscreen (USB Interface)
FPM-3191G-XBE	Industrial 19" SXGA Flat Panel Monitor
FPM-3191G-RBE	FPM-3191G-XBE with Resistive Touchscreen (RS-232 Interface)
FPM-3191G-UBE	FPM-3191G-XBE with Resistive Touchscreen (USB Interface)
FPM-3170G-XBE	Industrial 17" TFT LCD Display with 19" Rack-Mount Bezel, Direct-VGA, DVI-D, S-Video & Video Input
FPM-3170G-RBE	FPM-3170G-XBE with Resistive Touchscreen (RS-232 Interface)
FPM-3170G-UBE	FPM-3170G-XBE with Resistive Touchscreen (USB Interface)
FPM-3171G-XBE	Industrial 17" SXGA Flat Panel Monitor
FPM-3171G-RBE	FPM-3171G-XBE with Resistive Touchscreen (RS-232 Interface)
FPM-3171G-UBE	FPM-3171G-XBE with Resistive Touchscreen (USB Interface)
FPM-5171G-X0AE	Industrial 17" TFT LCD Display with Direct-VGA & DVI-D Port
FPM-5171G-R3AE	FPM-5171G-X0AE with Resistive Touchscreen (RS-232 & USB Interface)
FPM-5151G-X0AE	Industrial 15" TFT LCD Display with Direct-VGA & DVI-D Port
FPM-5151G-R3AE	FPM-5151G-X0AE with Resistive Touchscreen (RS-232 & USB Interface)
FPM-3150G-XCE	Industrial 15" TFT LCD Display with Direct-VGA & DVI-D Port
FPM-3150G-RCE	FPM-3150G-XCE with Resistive Touchscreen (RS-232 & USB Interface)
FPM-2150G-XCE	Industrial 15" TFT LCD Display with Direct-VGA Port
FPM-2150G-RCE	FPM-2150G-XCE with Resistive Touchscreen (RS-232 Interface)
FPM-2150G-UCE	FPM-2150G-XCE with Resistive Touchscreen (USB Interface)

Model		FPM-2150G	FPM-3150G	FPM-3120G	FPM-3060G
LCD Display	Size (diagonal)	15"	15"	12.1"	6.5"
	Resolution	1024 x 768	1024 x 768	800 x 600	640 x 480
	Colors	16.2 M	16.2 M	262 k	262 k
	Viewing Angle (H,V)	140, 125	140, 120	140, 120	140, 120
	Luminance (cd/m2)	250	550	350	300
	Backlight Life (hrs)	50,000	50,000	50,000	50,000
	Contrast Ratio	500 : 1	500 : 1	200 : 1	500 : 1
Direct VGA Input		Yes	Yes	Yes	Yes
DVI Input		-	Yes	-	-
S-Video		-	-	-	-
Video Input		-	-	-	-
Touchscreen (optional)		Resistive	Resistive	Resistive	Resistive
OSD (onscreen display)		Yes	Yes	Yes	Yes
Touchscreen Sensor		AMT	AMT	AMT	AMT
Inverter		TDK	TDK	TDK	TDK
Power Adapter (voltage, AC)		100-240 V	100-240 V	100-240 V	100-240 V
DC Power Input (voltage)		N/A	N/A	N/A	N/A
Front Panel Ingress Protection		NEMA4/IP65	NEMA4/IP65	NEMA4/IP65	NEMA4/IP65
Operating Temperature		0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)
Storage Temperature		-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)
Certifications		BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC	BSMI, CCC, CE, FCC
Dimensions (W x H x D)		383 x 307 x 48 mm (15" x 12" x 1.89")	422 x 310 x 86 mm (16.6" x 12.2" x 3.4")	312 x 244 x 44.6 mm (12.28" x 9.61" x 1.76")	220 x 150 x 46 mm (8.7" x 5.9" x 1.8")

Ordering Information

FPM-3120G-XAE	Industrial 12.1" SVGA TFT LCD with Direct-VGA Port
FPM-3120G-RAE	FPM-3120G-XAE with Resistive Touchscreen (RS-232 Interface)
FPM-3060G-XAE	Industrial 6" VGA TFT LCD with Direct-VGA Port
FPM-3060G-RAE	FPM-3060G-XAE with Resistive Touchscreen (RS-232 Interface)
FPM-3060G-UAE	FPM-3060G-XAE with Resistive Touchscreen (USB Interface)
FPM-3150G-RMKE	Mounting Kit for 19" Industrial Rack (For FPM-3150G Series)
FPM-2150G-RMKE	Mounting Kit for 19" Industrial Rack (For FPM-2150G Series)
FPM-2150G-SMKE	Mounting Kit for Desktop & Wall (For FPM-2150G/3120G/3150G Series)
FPM-3060G-VMKE	FPM-3060G VESA Mounting Kit
FPM-5151G-SMKE	Stand Kit for FPM-5151G
PWR-246E	Industrial DC to DC Converter with 24 ~ 48VDC Power Input

Accessories

FPM-3150G-RMKE
19" rack mounting kit for FPM-3150G series

FPM-2150G-RMKE
19" rack mounting kit for FPM-2150G series

FPM-2150G-SMKE
Stand / desk / wall mounting kit for FPM-2150G, FPM-3150G, FPM-3120G

PWR-246E
Industrial DC to DC converter w/24~48VDC power input

RS-232 Cable 9-pin to 9 pin
1700091800 (1.8m)

VGA Cable 15-pin to 15-pin
1700151801 (1.8m)
1700155000 (5m)
1700151000 (10m)
1700155001 (50m)

FPM-3060G-VMKE
VESA mounting kit for FPM-3060G series

FPM-5151G-SMKE
Stand Kit for FPM-5151G

Industrial Panel PC Overview

The robust design and compact size of the IPPC series make it a good fit for almost any industrial application. Constructed with heavy-duty aluminum or stainless steel front panel and tempered glass, the rugged design of IPPCs stand up to the toughest industrial operating environments. Equipped with powerful Intel Pentium M / Celeron M processors, IPPC's provide high performance with excellent expansion capabilities.

Industrial-proven and Rugged Design
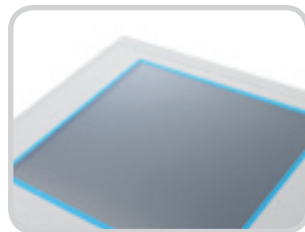
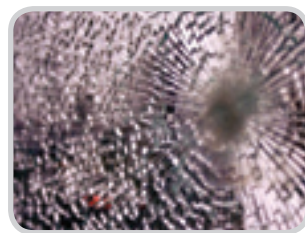Flat-sealed front panel impervious to water and dust

Anti-shock / Anti-vibration HDD design

NEMA4/IP65 compliant

Aluminum front panel (stainless steel optional)

Tempered glass is stronger, providing more industrial safety protection

Complete Product Line for IPPC

IPPC-6152A
15" XGA TFT LCD Pentium M/Celeron M Industrial Panel PC with 2 x PCI Slots

• 15" XGA TFT LCD with touchscreen (optional)
• Intel Pentium M Processor up to 2.0 GHz/Celeron M 1.5 GHz
• System memory supports dual channel DDR2 SDRAM up to 2 GB
• Offers two expansion slots for PCI add-on card
• Dual Lan, supports one Gigabit Lan
• Front USB access and system reset function
• Flat-sealed front panel
• Control Box with gull-wing design for easy installation and maintenance
• Front panel is NEMA4/IP65 compliant

IPPC-6172A
17" SXGA TFT LCD Pentium M/Celeron M Industrial Panel PC with 2 x PCI Slots

• 17" SXGA TFT LCD with touchscreen (optional)
• Intel Pentium M Processor up to 2.0 GHz/Celeron M 1.5 GHz
• System memory supports dual channel DDR2 SDRAM up to 2 GB
• Offers two expansion slots for PCI add-on card
• Dual Lan, supports one Gigabit Lan
• Front USB access and system reset function
• Flat-sealed front panel
• Control Box with gull-wing design for easy installation and maintenance
• Front panel is NEMA4/IP65 compliant

IPPC-7157A
15" XGA TFT LCD Pentium D/Pentium 4/Celeron D Industrial Panel PC with 7 x PCI/PCIe Slots and Membrane Keypad

TAIWAN EXCELLENCE 2008

• Pentium D up to 3.2 GHz/Pentium 4 up to 3.8 GHz/Celeron D up to 3.06 GHz
• 15" XGA TFT LCD with touchscreen (optional) provides vivid, sharp images
• Offers 7 expansion slots for PCI and PCIe interface
• Detachable side-open front panel makes maintenance fast & easy
• Programmable membrane function keys for varied application access
• Heavy-duty design with anti-rust chassis and NEMA4/IP65 aluminum front panel
• One front-accessible USB 2.0 port

IPPC-7158B
15" XGA TFT LCD Industrial Panel PC with 14 x ISA/PCI/PICMG Slots, Passive Backplane and Membrane Keypad

TAIWAN EXCELLENCE 2008

• 15" XGA TFT LCD with touchscreen (optional) provides vivid, sharp images
• Offers 14 expansion slots for PCI, PICMG and ISA
• Detachable side-open front panel makes maintenance fast & easy
• Programmable membrane function keys for varied application access
• Heavy-duty design with anti-rust chassis and NEMA4/IP65 aluminum front panel
• One front-accessible USB 2.0 port

Industrial Panel PC Overview

User-Friendly Interface

Front Accessible
◆ Programmable membrane
  macro keys
◆ Function keys
◆ Cursor keys
◆ Touchpad

Front USB access

OSD control behind
the front panel of
IPPC-7000 series

Designed for Easy Installation & Flexible Expansion

Gull-wing rear cover allows easy
access to CPU, RAM, PCI and HDD

IPPC-7000's detachable sideopen
front panel

Flexible board configura-
tion between industrial
motherboard (IPPC-7157A)
or passive backplane
(IPPC-7158B)

	Model Name	IPPC-6172A	IPPC-6152A	IPPC-9171G	IPPC-9151G	IPPC-7157A	IPPC-7158B
LCD Display	Type	SXGA TFT LCD	XGA TFT LCD	SXGA TFT LCD	XGA TFT LCD	XGA TFT LCD	
	Size	17"	15"	17	15"	15"	
	Max. Resolution	1280 x 1024	1024 x 768	1280 x 1024	1024 x 768	1024 x 768	
	Max. Colors	16.2 M (RGB 6-bit + FRC data)	16.2 M (RGB 6-bit + FRC data)	16.2 M	262K,144K	16.2 M (RGB 6-bit + FRC data)	
	Viewing Angle (H, V°)	160, 160	140, 120	160, 160	120, 100	140, 120	
	Luminance (cd/m2)	300	250	300	350	250	
	Backlight Life (hrs)	50,000	50,000	50,000	50,000	50,000	
	Contrast Ratio	800 : 1	500 : 1	800 : 1	400:1	500 : 1	
	CPU	Socket 478 Pentium M (up to 2 GHz)/ Celeron M 1.6 GHz	Socket 478 Pentium M (up to 2 GHz)/ Celeron M 1.6 GHz	Socket 478 Pentium 4 (up to 2.8 GHz)/ Celeron 2.4 GHz	Socket 478 Pentium 4 (up to 2.8 GHz)/ Celeron 2.4 GHz	Socket 775 Pentium D (up to 3.2 GHz) Socket 775 Pentium 4 (up to 3.8 GHz) Socket 775 Celeron D (up to 3.06 GHz)	-
	Memory	Up to 2 GB DDR2 SDRAM 400/533 MHz	Up to 2 GB DDR2 SDRAM 400/533 MHz	Up to 2 GB DDR SDRAM (DDR-DIMM 184 pin)	Up to 2 GB DDR SDRAM (DDR-DIMM 184 pin)	Up to 4 GB DDR2 SDRAM (Dual Channel DDR2 DIMM 240 pin)	-
	IEEE 1394 (Firewire) Ports	-	-	Two	Two	N/A	-
	Serial Ports	1 x RS-232	1 x RS-232	1 x RS-232, 1 x RS-232/422/485	1 x RS-232, 1 x RS-232/422/485	1 x RS-232, 1 x RS-232/422/485	-
	Parallel Ports	One	One	One	One	One	-
	Video Ports	VGA	VGA	VGA/S-Video	VGA/S-Video	VGA	-
	USB Ports	5 x USB 2.0 (one at front)	5 x USB 2.0 (one at front)	5 x USB 2.0 (one at front)	5 x USB 2.0 (one at front)	1 x USB2.0 on front panel 4 x USB2.0 on rear I/O	-
	Network (LAN)	10/100Base-T x1 10/100/1000Base-T x 1	10/100Base-T x1 10/100/1000Base-T x 1	10/100Base-T	10/100Base-T	Dual 10/100/1000Base-T	-
	Floppy Disk Drive (Optional)	-	-	One	One	1	1
	CD-ROM Drive (Optional)	Slim Type x 1	Slim Type x 1	Slim Type x 1	Slim Type x 1	5.25" half length	5.25" half length
	Hard Disk Drive (Optional)	1 x 2.5" SATA	1 x 2.5" SATA	1 x 3.5	1 x 3.5	2 x 3.5" SATA	1 x 3.5"
	PCMCIA Slot	-	-	Type II x 2	Type II x 2	N/A	N/A
	Expansion Slots	2 x PCI	2 x PCI	2 x PCI	2 x PCI	5 x PCI, 2 x PCIe	14 Slots Backplane (PCI x10, ISA x2, PCI/ISA x2)
	Touchscreen Type (Optional)	Resistive	Resistive	Resistive	Resistive	Resistive	
	Power Supply (AC)	180 W	180 W	180 W	180 W	300 W	
	Operating Temperature	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	0 ~ 50° C (32 ~ 122° F)	
	Storage Temperature	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	-20 ~ 60° C (-4 ~ 140° F)	
	Certifications	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC, UL	BSMI, CCC, CE, FCC	
	Dimensions (W x H x D)	481.92 x 355.87 x 146 mm (18.97" x 14.01" x 5.75")	449.92 x 315.63 x 141.7 mm (17.73" x 12.44" x 5.58")	482 x 354.8 x 162 mm (18.97 x 13.96 x 6.37)	482 x 354.8 x 162 mm (18.97 x 13.96 x 6.37)	482 x 354.8 x 162 mm (18.97" x 13.96" x 6.37")	

Ordering Information

IPPC-6172A-X0AE 17" SXGA TFT LCD Pentium M/Celeron M Industrial Panel PC with 2 x PCI Slots
IPPC-6172A-R0AE 17" SXGA TFT LCD Pentium M/Celeron M Industrial Panel PC with 2 x PCI Slots with resistive touchscreen
IPPC-6152A-X0AE 15" XGA TFT LCD Pentium M/Celeron M Industrial Panel PC with 2 x PCI Slots
IPPC-6152A-R0AE 15" XGA TFT LCD Pentium M/Celeron M Industrial Panel PC with 2 x PCI Slots with resistive touchscreen
IPPC-9151G-XAE 15" XGA TFT LCD Pentium 4 Industrial Panel PC with 2 x PCI Slots
IPPC-9151G-RAE 15" XGA TFT LCD Pentium 4 Industrial Panel PC with 2 x PCI Slots with resistive touchscreen
IPPC-9171G-XAE 17" SXGA TFT LCD Pentium 4 Industrial Panel PC with 2 x PCI Slots
IPPC-9171G-RAE 17" SXGA TFT LCD Pentium 4 Industrial Panel PC with 2 x PCI Slots with resistive touchscreen
IPPC-7157A-X1AE 15" Pentium D Industrial Panel PC with 7 x PCI/PCIe slots
IPPC-7157A-R1AE 15" Pentium D Industrial Panel PC with 7 x PCI/PCIe slots and resistive touchscreen
IPPC-7158B-X1AE 15" XGA TFT LCD Passive Backplane Industrial Panel PC with 14 x ISA/PCI/PICMG Slots and Membrane Keypad
IPPC-7158B-R1AE 15" XGA TFT LCD Passive Backplane Industrial Panel PC with 14 x ISA/PCI/PICMG Slots and Membrane Keypad and resistive touchscreen

Industrial Automation Computing Platform Overview

Featuring a new vibrant color scheme, the IACP-4000 series of 4U rack mountable computing platforms provides powerful automation solutions for a variety of industrial applications.

5.7" VGA TFT LCD & function keys

Front door lock & LED alarm

Front-accessible USB 2.0 & PS/2 ports

Dual fan & modular LCD kit with OSD

Supports 300W power PS/2 and redundant ATX power supplies

Industrial motherboard

IACP-4000D
5.7" VGA TFT LCD Pentium 4 / Celeron D 4U Industrial Workstation with 7 x ISA/PCI Slots

- 4U rackmount chassis with ATX Industrial Motherboard
- Shock-resistant disk drive bay design holds up to three 5.25" and one 3.5" disk drives
- Front accessible USB 2.0 & PS/2 port for easy data transferring
- Dual front-accessible filtered cooling fans provide optimal, streamlined airflow
- Front LEDs indicate system health, such as power status, fan operation, in chassis temperature and HDD activity
- Lockable front door prevents unauthorized access
- Supports 300 W single PS/2 and reduntant ATX power supplies

Model Name	IACP-4000D
Diagonal	5.7"
Type	VGA TFT LCD
Max. Resolution	640 x 480
Max. Colors	262 K (RGB 6-bit)
Viewing Angle (H, V°)	140, 100
Luminance (cd/m2)	220
Backlight Life (hrs)	50,000
Contrast Ratio	300 : 1
CPU	Intel μFC-LGA 775 socket Supports Pentium 4/Celeron D with 65nm process technology
Memory	Up to 4 GB DDR2 SDRAM (Dual Channel DDR2 DIMM 240 pin)
IEEE 1394 (Firewire) Ports	N/A
Serial Ports	1
Parallel Ports	1
Video Ports	VGA
USB Ports	6 (2 at front)
Network (LAN)	Dual 10/100/1000Base-T
3.5"	1
5.25"	3
PCMCIA Slot	N/A
Expansion Slots	1 PCI Express x 16, 5 PCI slots (PCI Rev. 2.2 compliant), 2 ISA slots
Touchscreen Type (Optional)	N/A
Power Supply (AC)	300 W
Operating Temperature	0 ~ 50° C(32 ~ 122° F)
Storage Temperature	-20 ~ 60° C(-4 ~ 140° F)
Certifications	BSMI, CCC, CE, FCC
Dimensions (W x H x D)	482 x 177 x 480 mm (19" x 7" x 18.9")
Weight	18 kg (39.7 lb)

Ordering Information

IACP-4000D-A0AE   5.7" VGA TFT LCD Pentium/Celeron D 4U Rack Industrial Workstation with 7 x ISA/PCI Slots

Accessories

KBD-6312
Rackmount Keyboard with Touchpad

HMI Application Story Overview

Advantech's open HMI solutions are designed to fulfill the needs of mission-critical automation applications. Their rugged features and powerful computing technology deliver reliability and flexibility.

Point of Service Terminals in Gas Stations
IPPC-6152A - 15" XGA TFT LCD Pentium 4/Celeron M Industrial Panel PC with 2 x PCI Slots

Our clients' existing Point of Sales terminals were breaking down frequently and they were looking to upgrade their machines to perform more reliably in the demanding environment, and be able to operate around-the-clock, 24 hours a day, 7 days a week. The high temperatures, dust and chemical density of their environment was very demanding, but nevertheless they were looking to increase their minimum total Operating Life Cycle to at least 5 years. Furthermore, the Point of Sales terminals needed to be equipped with rich communication, Ethernet and USB ports to fulfill multiple equipment connectivity.

The IPPC-6152A was the best choice for this application. Now only can it easily link with the Transaction Server, its wide operating temperature and fanless design allow it to operate all day long while maintaining system stability. Furthermore, each IPPC-6152A is equipped with ingress protection on the front panel, allowing it to withstand harsh environmental conditions.

Intelligent Transportation Solution for Traffic Light Displays
TPC-1261H – 12.1" SVGA TFT LCD Geode LX800 Touch Panel Computer

Creating traffic flow installations that ensure safe, efficient and environmentally friendly traffic and mobility is the day to day concern of many countries. An integrated approach is necessary to provide complete solutions and keep traffic moving: to combat traffic-jams, keep cities liveable and to streamline the flow between cities and motorways. Having detailed information about communication and traffic systems for urban road networks and road systems, plus the capability to connect together different systems, guarantees a successful integrated approach at all levels. In this solution, the TPC-1261H provides an intelligent control panel allowing users to easily monitor and maintain the traffic information system without complications.

The robust and fanless TPC-1261H is an excellent solution for this application. The Windows OS ensures our customers can easily integrate intelligent and value-added services, while the unique transflective solution makes operating in direct sunlight easier than ever before.

HMI in Modern Oil Drilling for the Petroleum Industry
IPPC-9151G – 15" XGA TFT LCD Pentium 4 Industrial Panel PC with 2 x PCI Slots

A mudlogger in the modern oil field gathers data and collects samples during the drilling process. This can be challenging, especially during drilling activity. Much of the equipment will require precise calibration or alignment by the mudlogger to provide accurate readings. Over 30 data parameters needed to be recorded and controlled while withstanding the harsh conditions of a modern oil field. Furthermore, distributed control on the mudlogging device should be implemented by advanced control technologies, so as to improve the control precision of all technological parameters during the operation.

This is an extremely taxing application that requires a highly rugged, reliable and user-friendly HMI. The IPPC-9151G is able to withstand the intense electromagnetic interference, noise, vibration, and unstable currents present, and still provide dependable operation.

Automated Bakery Systems for the Food Industry
TPC-66SN - 5.7" QVGA CSTN LCD XScale PXA270 Touch Panel Computer

Because of the high temperatures inside bakery production areas, high operating temperatures are required for all of the automated system hardware. An intuitive and easy-to-learn user interface also needs to be implemented within the controlling software. Furthermore, to connect the machine to other devices within the branch a corresponding hardware and software interface is necessary. In this way, new or updated recipes can be remotely added to the system. Finally, a touch panel computer is implemented as the control device to provide information on each phase of the baking process.

The TPC-66SN was highly recommended for this application. Not only does it provide reliable use in the hot environment, it's easy to use interface made the entire process easier for the end user. The operator starts the process by choosing the program from the TPC-66SN, which lasts nearly twenty hours, starting at -20° C and ending at +30° C. During the process the TPC-66SN shows each phase as graphical information.

Automatic Fluid Filling System for Road Construction Vehicles
TPC-1570H - 15" XGA TFT LCD Pentium M/Celeron M Touch Panel Computer

When designing this system, the customer wanted to have the capability for automatic and manual fueling. Additionally, they wanted to have warning displays and alarm messages, in the event of a leaky oil container or faulty hydraulic fluid filter. Each vehicle's fuel list needed to be adjusted through a password protected menu, and for each fluid, a pulse generator flow controller should be connected to the counter input of an Ethernet based I/O controller, which was connected to a Touch Panel Computer, which required a fanless and IP65 compliant design to withstand the harsh outdoor conditions.

As the main interface for this solution, the TPC-1570H was the perfect solution. Not only does it provide a rugged, reliable and fanless solution, it's easy to use interface made the complicated process much easier for the operator, who is responsible for the correct filling of oil, hydraulic fluid and water. The filling process starts after pressing the "start filling" key from the touchscreen menu and each individual fluid filling process can be viewed on the touchscreen monitor.

Wireless Fleet Management System with In-Vehicle Display
UNO-2053E - AMD GX2 UNO with 2 x LAN, 2 x COM and Audio
FPM-3060G - 6.4" VGA Industrial Monitor with Resistive Touchscreen and Direct-VGA Port

In order to provide an efficient management system for transportation applications, our customer was looking to implement advanced operating software that was easy to use while being powerful and functional. They required the ability to interact with maps onscreen, and view multiple vehicles onscreen at once. Furthermore, they wanted to have detailed reports for monthly distance tracking, average/top speeds, suburbs visited, driving times, waiting times and more. All of these functions needed to be established in their new eCarCenter.

The fleet management system consists of an FPM-3060G Industrial Monitor attached to an UNO-2053E, installed within the truck, and communicating with the eCarCenter in the central office. A satellite tracks vehicle through GPS, sending this information to both the eCarCenter and the UNO-2053E, which displays all of the information on the industrial display within the truck itself. This way, the management team will always know the location of the truck, while the driver has access to updated road, safety and weather information displayed through the FPM-3060G.